CLAIMS

1. Apparatus for forming a terminal on a battery, wherein the battery has a lid having a metal bush and a post connecting a group within the battery and located with its free end in the bush including:

   (c) a fusing device for fusing the post to the bush to form an assembly,

   (d) a mould having a cavity receiving the assembly and for forming or finishing a terminal

   characterised in that the mould cavity extends above the intended height of the terminal to allow for overfilling of the mould and the cavity includes a constant height structure to define the final fill level of the mould.

2. Apparatus as claimed in Claim 1 further including a pump for pumping molten material into the cavity.

3. Apparatus as claimed in Claim 1 or Claim 2 wherein the molten material is introduced into the mould via the constant height structure.

4. Apparatus as claimed in Claim 3 wherein the constant height structure is in communication with an inlet/outlet channel.

5. Apparatus as claimed in Claim 4 wherein the inlet/outlet channel includes a valve for determining the height of molten material in the inlet/outlet channel relative to the constant height structure.

6. Apparatus as claimed in any one of the preceding claims wherein the constant height structure is a weir.

7. Apparatus as claimed in Claim 6 wherein the weir is inclined downwardly in the direction of outflow from the cavity.

8. Apparatus as claimed in any one of the preceding claims further including a displacement body for introduction into the mould cavity to ensure that any excess material flows out of the mould.

9. Apparatus as claimed in any one of the preceding claims wherein the fusing device is a heatable probe for engaging and fusing the post and bush.

10. Apparatus as claimed in Claim 9 wherein the tip of the probe is formed to engage the tip of the post.

11. Apparatus as claimed in Claim 9 or Claim 10 wherein the probe has a dependent skirt at its tip for melting at least part of the inner periphery of the bush.

12. Apparatus as claimed in any one of Claims 9 to 12 wherein the probe is mounted for movement into and out of the mould cavity.

13. Apparatus as claimed in Claim 12 above dependent on Claim 8 wherein the probe constitutes the displacement body.

14. Apparatus as claimed in any of claims 9 to 13 wherein the probe is heated by at least one gas jet.

15. Apparatus as claimed in Claim 14 further including a control for increasing the strength of the gas jet when the probe is remote from the cavity after moulding to surface treat the tip of the terminal and/or to displace any flashings from the terminal.

16. Apparatus as claimed in any one of the preceding claims wherein a part of the mould includes a thermal break adjacent the level of the lid of the box to retain heat at the base of the mould.

17. A method for forming a terminal on a battery wherein the battery has a lid having a metal bush and a post connected to a group within the battery and located with its free end in the bush wherein the post is initially fused to the bush and the terminal is moulded on the fused bush and post assembly in a mould encircling the assembly characterised in that the

mould is initially overfilled with terminal forming material and subsequently the excess material is allowed to flow out of the mould.

18. A method as claimed in Claim 17 wherein the post is fused to the bush whilst located in the mould.

19. A method as claimed in Claim 18 wherein the post and bush are fused by engagement by a heated probe introduced into the cavity of the mould.

20. A method as claimed in Claim 18 wherein the probe is withdrawn from the cavity during filling of the mould and subsequently dipped into the mould cavity to displace any remaining excess material.

21. A method as claimed in any one of Claims 17 to 20 wherein a jet of hot gas is played on the surface of the terminal, after the excess material has flowed out, to remove any flashings.

22. A method as claimed in any one of the preceding claims wherein heat is retained in area of the assembly whilst the terminal solidifies.

23. A method as claimed in any one of Claims 17 to 22 wherein the tip of the terminal is re-heated as solidification occurs.